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PANCHENKO, N. I., Cand Phys-Math Sci (diss) -- "Movement of the earth's pole in 1946-1954, based on data from latitude observations". Leningrad, 1960. 12 pp (Main Astron Observatory of the Acad Sci USSR), 200 copies (KL, No 12, 1960, 124)

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PANCHENKO, Yu. I.

PHASE I BOOK EXPLOITATION SOV/3742

Akademiya nauk SSSR. Mezhdvedomstvennyy komitet po provedeniyu Mezhdunarodnogo geofizicheskogo goda. VIII razdel programmy MGG: Shiroty i dolgoty.

Predvaritel'nyye rezul'taty issledovaniy kolebaniy shirot i dvizheniya polyusov zemli; sbornik statey (Preliminary Data of Latitude Variations and Migrations of the Earth's Poles; Collected Articles. No. 1) Moscow, Izd-vo AN SSSR, 1960. 97 p. Errata slip inserted. 1,000 copies printed.

PURPOSE: This collection of articles is intended for astronomers, geophysicists, and other scientists concerned with the problem of latitude variations and the migration of the Earth's poles.

COVERAGE: Part I of the collection contains preliminary results of latitude observations from 1957.5 through 1959.0 made at IGY stations in the USSR network, including new stations in Siberia. Part II consists of articles describing new instruments, observational programs and methods, and procedures of processing the latitude observational data. With the larger number of stations and the use of new instruments it is anticipated that the final results will provide a more comprehensive study of anomalies and instrumental

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Preliminary Data of Latitude Variations (C[illegible]) SOV/57-2

[illegible] in latitude observations [illegible] in particular previously. No per-[illegible] tables are mentioned. [illegible] and references follow each article.

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[illegible], S. V., L. D. [illegible], [illegible] N. A. [illegible]. Latitude [illegible] at the [illegible] in Ast[illegible] [illegible] of the Academy of Sciences [illegible] (Pro[illegible]-Zenith-Telescope) 7

[illegible], Th. I., V. P. [illegible], and O. V. Chernova. [illegible] of Telescope Tubes at the [illegible] Astrophysical [illegible] of the Ukrainian Academy of Sciences (Zeiss Zenith-Telescope) 9

[illegible] V, N. A. Observations of Bright Zenith Stars at the Poltava [illegible] Astrophysical Observatory of the Ukrainian Academy of Sciences (Zeiss Zenith-Telescope) 13

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[illegible], Ya. Z., Ye. P. [illegible], and A. P. [illegible]. Observations [illegible] of the [illegible] of Sciences ([illegible]) 17

[illegible], Ye. I. Observations of Zenith Stars at the Poltava [illegible] Observatory of the Ukrainian [illegible] of Sciences (Danjon [illegible]) 20

[illegible], V. P., P. M. Rabinskiy, and N. A. Ch[illegible]ovicheva. Latitude [illegible] at the Astronomical Observatory imeni Engel'gardt ([illegible] Zenith-Telescope) 25

[illegible], D. I. Latitude Observations at the Kitab International [illegible] Station imeni Ulug-bek (Danjon Zenith-Telescope) 28

[illegible], K. S. Latitude Observations at the Irkutsk State [illegible] Astronomical Observatory imeni A. A. Zhdanov (ZTL-180 [illegible] Zenith-Telescope) 31

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3

S/035/61/000/011/006/028
A001/A101

AUTHOR: Panchenko, N.I.

TITLE: On damping of the Earth's free nutation

PERIODICAL: Referativnyy zhurnal. Astronomiya i Geodeziya, no. 11,1961, 13, abstract 11A111 ("Tr. 14-y Astrometr. konferentsii SSSR, 1958", Moscow-Leningrad, AN SSSR, 1960, 232 - 243, Engl. summary)

TEXT: The author analyzes the works studying the damping and excitation of Chandler pole motion (Jeffreys, H., Walker, A.M., Young, A. Ledersteger, K., Sakharov, V.I. etc.). The observational data of the International Latitude Service for 60 years processed by A.Ya. Orlov were used for determining the Chandler period duration and relaxation time (time during which Chandler wave amplitude decreases by a factor of e). The analysis was performed by the slightly modified Jeffreys method; it led to the value of damping factor $k = +0.012 \pm \pm 0.002$ year^{-1} which corresponds to relaxation time of about 90 years. This value can be considered as the lower limit for relaxation time. Chandler period

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On damping of the Earth's free nutation

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A001/A101

proved to be on the average 1.186 years. Its reduction from 1.190 to 1.18[illegible] during the time span considered (1897 - 1957) is noted.

Kh. Potter

[Abstracter's note: Complete translation]

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3

S/035/62/000/009/006/060
A001/A101

AUTHOR: Panchenko, N. I.

TITLE: Determination of coordinates of the Earth pole by the International Latitude Service

PERIODICAL: Referativnyy zhurnal, Astronomiya i Geodeziya, no. 9, 1962, 16, abstract 9A155 ("Tr. Polatavsk. gravimetr. observ. AN USSR", 1961, v. 9, 95 - 120)

TEXT: Brief information is given on the history of activities of the International Latitude Service, ILS. The method of processing latitude observations at ILS stations and determination of pole coordinates, which were in use in various periods of activity of the Central Bureau of ILS, are critically analyzed. The following deficiencies are noted: 1) Variability of average latitudes of the stations is not taken into account in calculations of pole coordinates; 2) the ILS Central Bureau does not utilize rich observational data from the stations not located on the international parallel; 3) the final results are published with a great delay. In spite of doubts, existent at present, in necessity of continuation of the ILS operation, the author is of the opinion that this organization should not be closed. [Abstracter's note: Complete translation]

Card 1/1 Kh. Potter

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3

PANCHENKO, N.I.; SLAVINSKAYA, A.A.

Using the Danjon prismatic astrolabe in observations of latitude variations in Poltava. Trudy Polt. grav. obser. 11:3-15 '62. (MIRA 15:11)

(Poltava—Latitude variation)
(Astrolabes)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3

S/589/62/000/058/002/002
A001/A101

AUTHORS: Panchenko, N. I., Fedorov, Ye. P.

TITLE: On determining the coordinates of the pole for time service

SOURCE: USSR. Komitet standartov, mer i izmeritel'nykh priborov. Trudy institutov Komiteta, no. 58 (118), 1962, Issledovaniya v oblasti izmereniy vremeni, 39 - 64

TEXT: The first chapter contains the history of the problem of determining pole coordinates for the purposes of time service and the criticism of the activities of the International Latitude Service, SIL, which did not assure the furnishing of necessary data for time service. As this drawback was evident for the Soviet astronomers, the 10th All-Union Astronomical Conference, held at Pulkovo on December 8 - December 11, 1952, elaborated the plan and principal lines for activities of the Soviet Latitude Service, which are described in the second chapter. The latter started operations in May 1953 after the approval of the plan by the Astronomical Council at the AS USSR. The Soviet Latitude Service carried out calculations of preliminary pole coordinates by A. Ya. Orlov's method which is based

Card 1/4

...ions.
... Service, SIR,
...on, which started speedy
... The authors criticize the basic
... the Central Bureau of SIL, Cecchini,

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consisting in requirement that the polhody of the International Latitude Service should serve as a test for the correctness of the results obtained by SIR. The inadequacy of this assumption, in the authors' opinion, follows from the incorrect assumption, by Cecchini, of the permanence of mean values of latitudes of the stations. They describe also the methods used by Director of the International Time Bureau, N. M. Stoyko, for calculating the mean coordinates of the pole based on observations with zenith-telescopes at Belgrad, Carloforte, Kitab, Midzusava, Poltava, Pulkovo, with photographic zenith-telescopes at Washington, Greenwich, Ottawa, Richmond, Tokio, and Danjon prismatic astrolabes at Algiers and Paris. The fourth chapter deals with reduction of pole coordinates to a common system. It consists of two problems: 1) reduction to the mean pole of the epoch of observations, and 2) reduction to the mean pole of some initial epoch. The first problem was completely solved by Orlov whose method is briefly outlined. The second problem is considered as being not yet solved, and the procedure used by Cecchini of reducing the observations to the "barycenter of the 1900-1905 polhody" is criticized as being not correct. The authors illustrate their statement by presenting the graph of pole motion according to calculations by the International Time Bureau, Soviet Latitude Service and International Latitude Service, which

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On determining the coordinates of the... S/589/62/000/058/002/002
A001/A101

shows the divergence of the method calculated by the latter from the former two. The fifth and sixth chapter deal with estimates of the accuracy of determination of pole coordinates and their extrapolation to the future. It is concluded that extrapolation is admissible only for short time periods, not exceeding 0.5 years, which is sufficient for practical purposes. In conclusion the authors advance a proposal of establishing a scientific center for the assembly and analysis of all latitude observations and performance of fundamental research. There are 3 figures and 9 tables.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3

MATSEVICH, O.I.; PANCHENKO, N.I.

Casting the front cover of a roller bearing box. Lit. proizv. no.2:44-45 F '63. (MIRA 16:3)

(Founding)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3

GLANTS, R.M., prof.; PANCHENKO, N.I.; PASTERNAK, M.G.

Effect of isohemotransfusion on the content of sulfhydryl groups in some animal organs and tissues. Probl. gemat. i perel. krovi 8 no.11:41-44 N '63. (MIRA 17:12)

1. Iz fiziologicheskoy laboratorii (zav.- prof. R.M. Glants) i biofiziko-khimicheskoy laboratorii (zav. N.I. Panchenko) Ukrainskogo instituta perelivaniya krovi i neotloshnoy khirurgii (direktor L.A. Ripyakh).

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FLEYER, A.G. otv. red.; PAVLOV, N.N., red.; LANCHENKO, N.I., red.; POLOBED, V.V., red.; FEDOROV, Ye.I., red.

[Rotation of the earth; materials of the expanded plenum of the Committee for the Study of the Earth's Rotation of the Astronomical Council of the Academy of Sciences of the U.S.S.R. on April 10-13, 1962, in Kiev] Vrashchenie Zemli; materialy rasshirennogo plenuma Komissii po izucheniiu vrashcheniia Zemli Astronomicheskogo soveta AN SSSR, Kiev, 10-13 aprelia 1962 g. Kiev, Izd-vo AN USSR, 1963. 309 p. (MIRA 17:9)

1. Akademiya nauk URSR, Kiev. Holovna astronomichna observatoriya.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3

PANCHENKO, N.I.; DVULIT, P.D.

Systems of declinations of the centers of Talcott pairs obtained from observations performed by the International Latitude Service. Trudy Polt. grav. obser. 12:110-114 '63. (MIRA 16:9)
(Stars—Observations)
(Latitude variation)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3

ALEKSEYEV, Grigoriy Petrovich; IVANOV, Yevgeniy Akimovich; PANCHENKO, Nikolay Mikhaylovich; KOPYLOVA, L.P., red.; ANDREYEVA, L.S., tekhn. red.

[Soviet trade unions and their status and role in a socialist society] Sovetskie profsoiuzy, ikh polozhenie i rol' v sotsialisticheskom obshchestve. Moskva, Izd-vo VTsSPS Profizdat, 1961. 57 p. (MIRA 15:2)

(Trade unions)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3

1. PANCHENKO, N. P.

2. USSR (600)

4. Grinding and Polishing

7. Micro-geometry of surfaces following superfinish operation. Podshipnik no. 8, 1952

9. **Monthly List of Russian Accessions**, Library of Congress, January 1953. Unclassified.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3

Bearings (Machinery)

Technological [illegible]

Monthly List of Russian Accessions, Library of Congress, April [illegible]

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3

PANCHENKO, N.P., kandidat biologicheskikh nauk.

Increase of winter hardiness of grain crops under the effect of organomineral mixtures. Dokl.Akad.sel'khoz. 21 no.5:32-37 '56. (MLRA 9:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut rasteniyevodstva. Pushkinskiye laboratorii. Predstavlena akademikom I.I. Samoylovym.

(Fertilizers and manures)
(Leningrad Province--Grain)
(Plants--Frost resistance)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3

PANCHENKO, N.P.

Effect of lateral feed in grinding on the surface layer of parts. Mashinostroitel' no.12:25-28 D '59. (MIRA 13:3)
(Grinding and polishing)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3

PANCHENKO, N.P., uchitel'nitsa

Zoology study circle of young naturalists. Biol. v shkole no.5:59-62 S-O '60. (MIRA 13:11)

1. Shkola No.114 g. Moskvy.
(Zoology—Study and teaching)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3

S/123/61/000/015/017/032
A004/A101

AUTHORS: Grozin, B. D., Panchenko, N. P., Semirog-Orlik, V. N., Sprishevskiy, A. I.

TITLE: The effect of mechanical operations on the state of the outer layers of antifriction bearings

PERIODICAL: Referativnyy zhurnal, Mashinostroyeniye, no. 15, 1961, 19, abstract 15B111 (V sb. "Povysheniye iznosostoykosti i sroka sluzhby mashin. v. 1". Kiyev, AN UkrSSR, 1960, 61-76)

TEXT: The authors present the results of comprehensive investigations of the effect of mechanical working on the physical state of the outer layers of the antifriction surfaces of antifriction bearing races. Four groups of specimens of bearing races were investigated, the manufacturing technology and processing conditions of which were different. The specimens were subjected to metallographic, electronic microscopic, X-ray structure and spectral analyses; their microhardness was also investigated. During some grinding conditions and other operations carried out after hardening, high temperatures and local pressures are arising, the interaction of which causes structural transformations in the surface

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layer. The thermal effect during grinding is different in the field of surface projections and cavities. The projections may undergo a second hardening, while the cavities mainly experience a tempering. The non-homogeneity of the outer layer produces structural stress raisers owing to which micro-destructions are possible in the surface layer. The thermal effect arising during the process of after-hardening operations contributes to the concentration of chromium and carbon at the surface. The initial microgeometry and the shape of the surface being machined affect the temperature gradient of the outer layer. The defective layer originating during the preceding operations cannot always be eliminated by technological finishing operations. The investigation shows the way of developing dependable processing conditions. There are 21 figures.

M. Borts

[Abstracter's note: Complete translation]

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3

S/123/61/000/012/010/042
A004/A101

AUTHOR: Panchenko, N. P.

TITLE: Residual deformation of rings from ШХ15 (ShKh15) grade steel

PERIODICAL: Referativnyy zhurnal, Mashinostroyeniye, no. 12, 1961, 77, abstract 12B557 (V sb. "Povysheniye iznosostoykosti i sroka sluzhby mashin. v. 2". Kiyev, AN UkrSSR, 1960, 70-82)

TEXT: The author investigated the residual deformation in rings from ShKh15 grade steel after having been subjected to different technological tooling operations (hardening, tempering, final mechanical working) during the process of natural (up to 3 years) aging and artificial aging (-70°C, subsequent tempering at 160°C). There are 9 figures and 3 references.

N. I.'ina

[Abstracter's note: Complete translation]

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3

GROZIN, B.D. [Hrozin, B.D.] [deceased]; PANCHENKO, N.P. [Panchenko, M.P.]; SEMIROG-ORLIK, V.N. [Semyroh-Orlyk, V.M.]; CHEPENKO, V.S.

Effect of the mass of the manufactured object on the physical state of the surface layers of the metal in repeated grinding. Dop. AN URSR no.6:769-773 '63 (MIRA 17:7)

1. Institut mekhaniki AN UkrSSR. 2. Chlen-korrespondent AN UkrSSR (for Grozin).

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L 32054-65 EWT(m)/EWP(w)/EWA(d)/T/EWP(t)/EWP(k)/EWP(b) WJW/JD/GS

ACCESSION NR: AT4049792 S/0000/64/000/000/0131/0140

AUTHOR: Nazarenko, G. T.; Panchenko, N. P.

27
B+1

TITLE: Contact fatigue strength of ShKh15 steel as a function of structural transformations in the surface layer caused by grinding

SOURCE: AN SSSR, Institut mashinovedeniya. Kontaktnaya prochnost' mashinostroitel'-nykh materialov (Contact strength of materials for machinery manufacture). Moscow, Izd-vo Nauka, 1964, 131-140

TOPIC TAGS: steel surface, steel strength, steel fatigue, steel grinding, steel structure, ShKh15 steel

ABSTRACT: The surface layer of ground parts may be either additionally tempered or rehardened depending on the type of grinding and, consequently, on the thermal effect. The paper by B. D. Grozin and G. T. Nazarenko included in this same publication considered the preliminary grinding of low-tempered ShKh15 steel with rehardening of the surface layer while the deeper layers were tempered during the heating stage. This paper continues these investigations into the relationship between fatigue strength and the structure of the layer which is changed during grinding under a wide range of pressures. The tests were made with two

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ACCESSION NR: AT4049792

sets of samples having different types of grinding and two sets with different tempering procedures. The tests showed that heat treatment during grinding was intermittent. After preliminary grinding, all samples were finely polished. The tests showed that structurally changed low-tempered ShKh15 steel after grinding had a lower contact fatigue strength under friction rolling. The durability was lowered to the same extent as the layer depth increased. When the structurally changed layer is rehardened, the removal of the rehardened layer opens up a highly tempered layer with low durability. Microcracks are formed in highly tempered surface layers. Residual tensile stresses cause disastrous lowering of durability. The rate of crack development and total crack length serve as indicators of residual stresses. The negative effect of the structurally changed layer on durability drops sharply when the contact pressure exceeds the yield limit of the surface layer, this being caused by lowering of residual stress due to plastic deformation. Testing of samples with sintered parts on the surface of a troostite structure with a microhardness higher than 620 kg/mm^2 showed that chipping of all samples was at the sintered part and the rest of the surface had the lowest durability. Orig. art. has: 9 figures and 4 tables.

ASSOCIATION: None

SUBMITTED: 03Mar64 ENCL: 00 SUB CODE: MM

NO REF SOV: 002 OTHER: 00

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3

L 10326-67 EWP(k)/EWT(m)/EWP(w)/EWA(d)/EWT(1) [illegible]

ACC NR: AP6020918 SOURCE CODE: UR/0369/66/002/002/0204/0208

AUTHORS: Bezruchko, I. V.; Golovinskaya, T. M.; Gorb, M. L.; Panchenko, N. P.; Chernenko, V. S.; Chernyak, N. I.

ORG: Mechanics Institute of the AN UkrSSR, Kiev (Institut mekhaniki AN UkrSSR); First GPZ, Moscow (Pervyy GPZ)

TITLE: Effects of the physical condition of the surface layer, formed during grinding, on the contact wear resistance of steel ShKh15

SOURCE: Fiziko-khimicheskaya mekhanika materialov, v. 2, no. 2, 1966, 204-208

TOPIC TAGS: surface fatigue, surface property, metal friction, steel property, grinding wheel, electron microscope, steel, x-ray equipment/ ShKh15 steel, EB60SM2K grinding wheel, E46SM2K grinding wheel, MIM-8M microscope, UEM-100 electron microscope, UPS-50I x-ray equipment

ABSTRACT: The effects of the structure and depth of structural gradients on the surface fatigue of ShKh15 steel were investigated. Thirty-five millimeter diameter x 10-mm thick disc-shaped specimens were heat-treated and ground using wheel EB60SM2K and finish-ground with wheel E46SM2K. Three grinding regimes (0.005 mm/rev, 0.15 mm and 0.25 mm) were used to produce structural changes in layers of 10--20, 150--160, and 220--250 micron respectively. After lapping to an 11--12 class finish, surface fatigue tests were performed at 1750 rpm using methods described by M. A. Puzanov

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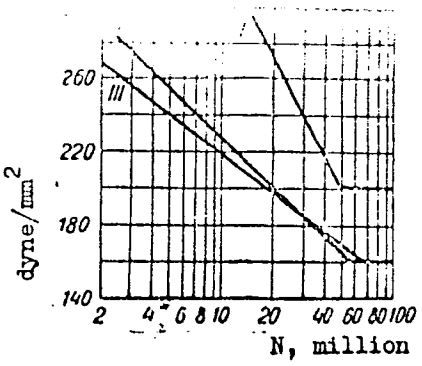
ACC NR: AP6020918

(Sb. Povysheniye iznosostoykosti detaley mashin, Izd. AN UkrSSR, 1956, No. 22). Microstructural studies of the surface layers were performed using optical and electron microscopes (MIM-8M and UEM-100 respectively) and x-ray equipment (UPS-50I). A discussion of the structural changes for the [illegible] regimes is included, and the experimental results are summarized in [illegible].

Fig. 1. Surface fatigue of group I, II, and III specimens (corresponding to structural changes in layers of 10--20, 150--160, and 220--250 micron respectively)



Orig. art. has: 5 figures.

SUB CODE: 11, 13/ SUBM DATE: 17Jul65/ ORIG REF: 003

Card 2/2

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3

L 04634-67 EWT(m)/EWP(t)/ETI/EWP(k) IJP(c) JD/HW
ACC NR: AP6010090 SOURCE CODE: UR/0129/66/000/003/0022/0024

39
B

AUTHOR: Panchenko, N. P.

ORG: GPZ

TITLE: Surface layer and contact endurance of steel ShKh15 in the process of rolling

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 3, 1966, 22-24, and top half of insert facing p. 33

TOPIC TAGS: alloy steel, ball bearing, steel, metallurgic research / ShKh15 steel metal rolling

ABSTRACT: The structure of the surface layer and the contact strength of steel ShKh15 during rolling were investigated. The experimental procedure followed is described by B. D. Gruzin and V. N. Semirog-Orlik (Sb. trudov Instituta stroitel'noy mekhaniki. Vyp. 22, M., Izd-vo AN SSSR, 1956). The experimental results are summarized in graphs and tables (see Fig. 1). It was found that the contact strength of the metal depended mainly on the physical state of the surface layer. The degree of contact surface cleanliness is a necessary but not sufficient criterion for the working quality of the steel. The reliability and longevity of the contact surface increases with increase in the structural homogeneity of the surface layer.

UDC: 620.178.154.162.2:669.14.018.25

Card 1/2

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3

L 04634-67

ACC NR: AP6010090

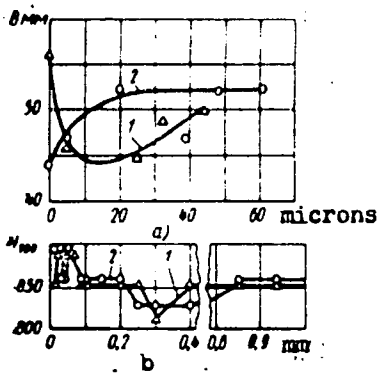

Fig. 1. Change in the width of line B (110) α (a) and microhardness H_{100} (b) along the depth of the surface layer: 1 - grinding, 2 - polishing.

Orig. art. has: 1 table and 3 graphs.

SUB CODE: 11/ 13/ SUBM DATE: none/ ORIG REF: 001

awm

Card 2/2

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3

L 06369-67 EWT(m)/EWP(w)/EWT(t)/ETI IJP(c) JD/DJ

ACC NR: AP6027489 (A) SOURCE CODE: UR/0418/66/000/003/0063/0066

AUTHOR: Bezruchko, I. V. (Engineer); Golovinskaya, T. M. (Engineer); Gorb, M. L. (Engineer); Panchenko, N. P. (Engineer); Chernenko, V. S. (Engineer); Chernyak, N. I. (Engineer)

ORG: None

TITLE: Contact fatigue strength of ShKh15 bearing steel

SOURCE: Tekhnologiya i organizatsiya proizvodstva, no. 3, 1966, 63-66

TOPIC TAGS: fatigue test, fatigue strength, steel microstructure, x-ray analysis, BEARING STEEL / ShKh15 BEARING STEEL

ABSTRACT: The authors describe a study carried out at the Institute of Mechanics AN UkrSSR in cooperation with the First State Bearing Plant on the contact fatigue strength of ShKh15 bearing steel. The basic criterion in evaluating polishing conditions is taken as the physical state of the layer structure and depth of structural variation. Mechanical methods for testing contact fatigue strength and for measuring microhardness were used together with metallophysical methods and microstructural and x-ray structural analysis. Steel specimens used for these tests were heat treated after finish machining. The following heat treatment procedures were used: quenching at 850°C in 40-50°C oil, cold processing with cooling to -30°C and tempering at 150-160°C. These conditions give specimens with a hardness of HRC 62-64. After heat treatment the specimens were polished under various conditions. The specimens were divided into three groups according to the amount of metal removed: 0.1 mm for the first group; 0.15 mm for the second and 0.25 mm for the third. Depth of structural

UDC: 620.17:669.14

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ACC NR: AP6027489

variation after polishing for the various groups is the following: 10-30 μ for the first group, 150-170 μ for the second and 220-250 μ for the third. Microstructural analysis for the first group shows that structural variation is not significant. The microhardness of these specimens is 950-1000 kg/mm^2. X-ray analysis for this group of specimens shows that variations due to polishing and honing are localized in a layer 10-30 μ thick. Slight deformation and elongation of the crystal lattice of the α-phase is observed in this layer. Depth of variation for the second group of specimens is 150-170 μ. This is substantiated by microhardness measurement data and microstructural and x-ray analysis. Depth of variation for the third group reaches 250 μ, these variations being similar to those of the second group. The unetched surfaces of the specimens in the first and second groups examined under an electron microscope show scaly tearing and deep scratches caused by polishing. After etching, secondary solid solutions are observed on individual surfaces oriented in the direction of polishing. A graph is given showing the contact fatigue strength of all three groups. The results show that contact fatigue limit for the second and third groups is identical (150-160 kg/mm^2), differing from the first group where maximum contact strength is 200 kg/mm^2. Pit depth for the first group under staining does not exceed 300 μ, reaching 600-700 μ for the second and third groups. All groups show large-scale microfocal scaling after testing observed on the electron microscope. The authors recommend that polishing procedures be selected which have the minimum effect on the structural variation of the surface layer of ShKh15 steel. Orig. art. has: 4 figures.

SUB CODE: 11/ SUBM DATE: None

Card 2/2

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3

PANCHENKO, N.V.

Occupational therapy for oligophrenic juveniles. Sbor. trud. Len. nauchn. ob-va nevr. i psikh. no.6:297-303 '59. (MIRA 13:12)

1. Iz otdela trudovoy terapii Psikhonevrologicheskogo instituta imeni V.M. Bekhtereva (direktor - chlen-korrespondent Akademii pedagogicheskikh nauk RSFSR prof. V.N. Myasishchev).
(MENTALLY HANDICAPPED CHILDREN)
(OCCUPATIONAL THERAPY)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3

BLYUMEN, V., inzh.; ZONNENBERG, M., inzh.; PANCHENKO, O., inzh.

The simplest method for eliminating the air gap between vanes and the working part of the cylinder of the "Kolhospnyi" press. Sil'.bud. 7 no.12:18 D '57. (MIRA 13:5)
(Brickmaking machinery)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3

ZONNENBERG, M. [Zonnenberh, M.] inzh.; PANCHENKO, O., inzh.;
BASOVICH, G. [Basovych, H.], inzh.

The simplest designs of steaming chambers and plants. Sil'. bud. 7 no.5:9-11 Mr '57. (MIRA 13:6)
(Autoclaves)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3

PANCHENKO, Oles'

[Technique of fishing and fish culture. (With 88 illustrations). The fish and the hook. Semi-commercial and commercial fishing, Fish breeding, Most common diseases in fish and the technique of processing fish] Tekhnika rybal'stva i rybnytstva. (Z 88 maliunkami) Ryba i hachok, Napivpromyslovyi ta promyslovyi lov ryby, Rybnytstvo, Naiposhyrenishi khoroby ryb ta tekhnika pererobky ryby. Vyd druhe. Na chuzhyni, Universal'na biblioteka [n.d.] 144 p. (MLRA 9:12)
(Fish culture) (Fishing)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3

DOKSHITSKAYA-ZATON, V.M., vrach; ROMANOVA, N.Ya., fel'dsher; VASILENKO, A.Ya., meditsinskaya sestra; LEVADA, Ye.A., meditsinskaya sestra; PANCHENKO, O.G., meditsinskaya sestra (Khar'kov)

Advanced training and improvement of the qualifications of semiprofessional medical personnel. Fel'd.i akush. 25 no.3: 45-47 Mr '60. (MIRA 13:6)

(MEDICINE--STUDY AND TEACHING)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3

33153
S/120/61/000/006/022/041
E032/E114

9,3120 (1003, 1138, 1160, 1331)

AUTHORS: Bol'shov, V. G., and Panchenko, O. A.

TITLE: Measurement of the energy distribution of secondary electrons

PERIODICAL: Pribory i tekhnika eksperimenta, no. 6, 1961, 108-111

TEXT: The principle of the method is based on the direct measurement of the secondary emission current in the emitter circuit for finite changes in the retarding potential. The apparatus is illustrated schematically in Fig. 1. It is in the form of a bridge two arms of which are formed by the vacuum gap M and the battery $U_п$. The other pair of arms is made up by the electrometer input resistor R_{BX} and the battery U_K (see bottom left-hand corner of Fig. 1). The detector diagonal of the bridge is connected to the input of the electrometer tube 2Э2П (2E2P). When the primary electrons have an energy $E_п = eU_п$ a current i_M flows in the circuit of target M. This current is equal to the difference between the primary current $i_п$ and the secondary current

Card 1/6

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33153
S/120/61/000/006/022/041
E032/E114

Measurement of the energy

$$i_B = \sigma i_n = i_n \int_{U_3}^{U_n} f(U)\, dU$$

The magnitude of this current and hence the magnitude of $i_M = i_n - i_B$ is a function of the applied voltage U_3. The bridge is balanced by adjusting the compensating voltage U_K for given U_n and U_3. If now the retarding voltage is altered by a small quantity ΔU_3 then the current in the target circuit is altered by Δi_M which corresponds to electrons with energies between $E_1 = eU_3$ and $E_1 + \Delta E = e(U_3 - \Delta U_3)$. In that case

$$i_M = i_n - i_B = i_n \left(1 - \int_{U_3}^{U_n} f(U)\, dU\right)$$

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33153
S/120/61/000/006/022/041
E032/E114

Measurement of the energy ....

and

$$\Delta i_M = \Delta i_n \left(1 - \int_{U_3}^{U_n} f(U)\, dU\right) - i_n f(U)\, \Delta U_3 \qquad (1)$$

When $\Delta i_n = 0$ it can be shown that

$$f(U) = - \Delta i_M / i_n\, \Delta U_3. \qquad (2)$$

Δi_M was measured by a valve electrometer whose indications were directly proportional to the voltage drop U_3 across the resistir R_{BX} due to the change in the target circuit current, i.e.

$$f(U) = - U_3 / R_{BX} i_n\, \Delta U_3 \qquad (3)$$

Once Δi_M had been measured the bridgewas rebalanced. The complete distribution curve was obtained by repeating this procedure the required number of times with U_3 varied from 0 to U_n in steps of 1 V. In order to suppress tertiary electrons

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3

33153

S/120/61/000/006/022/041
E032/E114

Measurement of the energy ..

the grid N was maintained at a potential of 25 to 50 volts relative to the collector A. At the same time, the grid could be maintained at the required potential U_3 relative to the target, and the magnitude of this potential was controlled by the position of the keys K_2, K_3 and the potential dividers $Д_1$ and $Д_2$. By placing the key K_1 in positions other than I, it was possible to measure the true coefficient of secondary electron emission and the inelastic reflection coefficient as described by the first of the present authors and V. Zarudin in Ref.4 (Fiz. tv. tela v.1, 1959 462). The apparatus has been used to measure the energy distribution of secondary electrons emitted by n-type germanium. It was found that Δ^1_M could be measured to within 3 to 4%. It is particularly important to suppress the tertiary electrons and to minimize departures from spherical symmetry due to the cylindrical anode of the gun. Acknowledgments are expressed to L.N. Dobretsov for valuable advice.
There are 2 figures and 4 references: 3 Soviet-bloc and 1 non Soviet-bloc. The English language reference reads as follows:

Card 4/6

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3

33153

Measurement of the energy ... S/120/61/000/006/022/041
E032/E114

Ref.1: H.E. Farnsworth, Phys. Rev., v.25, 1925, 41.

ASSOCIATION: Fiziko-tekhnicheskiy institut AN SSSR
Physico-technical Institute, AS USSR)

SUBMITTED: March 28, 1961

Card 5/6

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3

42764

S/185/62/007/010/006/020
D234/D308

AUTHORS: Ptushuns'kyy, Yu. H. and Panchenko, O. A.

TITLE: Variation of the electrical resistance of thin metallic films during adsorption

PERIODICAL: Ukrayins'kyy fizychnyy zhurnal, v. 7, no. 10, 1962, 1079-1081

TEXT: Experimentally determined resistances of Ni films before and after adsorbing are tabulated. The temperatures were 78 and 213°K for the adsorption of O_2, 78, 156 and 213°K for barium oxide. The difference of resistances increases with temperature in the first case and remains constant with a 1% accuracy in the second. It is concluded that the increase of resistance after adsorption is due to decrease of the number of conducting electrons in the first case and to a change of the conditions of electron scattering at the surface in the second. There are 2 tables.

ASSOCIATION: Instytut fizyky AN URSR, Kyyiv (Institute of Physics, AS UkrSSR, Kiev)

SUBMITTED : March 7, 1962

Card 1/1

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3

AGEYKIN, V.S.; BARTNOVSKIY, O.A.; BIBIK, V.F.; GORODETSKIY, D.A.; ISHCHUK, V.A.; KORCHEVOY, Yu.P.; NAUMOVETS, A.G.; PANCHENKO, O.A.

Eleventh Conference on the Physical Principles of Cathode Electronics. Radiotekh. i elektron. 9 no.6:1099-1113 Je '64. (MIRA 17:7)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3

L 13773-65 EWT(1)/EWT(m)/T/EWP(t)/EEC(b)-2/EWP(b) Pad IJP(c)/AFWL/AS(mp)-2/
SSD/ASD(a)-5/ESD(dp)/ESD(gs)/ESD(t) JD/HW/GG

ACCESSION NR: AP4045301 S/0048/64/028/009/1466/1469

AUTHOR: Panchenko, O. A.; Ptushinskiy, Yu. G.

TITLE: Influence of adsorption on the Hall effect in thin nickel films [Report, Tenth Conference on Cathode Electronics held in Kiev from 11 to 18 Nov 1963]

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 28, no. 9, 1964, 1466-1469

TOPIC TAGS: adsorption, conduction band, electron exchange, Hall effect, thin film, nickel

ABSTRACT: Generally, when investigating electron exchange incident to adsorption of various atoms and molecules on metals, experimenters have had recourse to observation of changes in the resistance of thin metal films as a result of adsorption. As was pointed out by the authors in earlier papers (Yu. G. Ptushinskiy, Radiotekhnika i elektronika, 5, 1663, 1960; Yu. G. Ptushinskiy and O. A. Panchenko, Ukr. fiz. zhur., 7, 1079, 1962), however, changes in resistance in-

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ACCESSION NR: AP4045301

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sistant to absorption may be due not only to electron exchange, but to other mechanisms which can be identified by varying the temperature of the metal film. This, however, is not always feasible or desirable. Accordingly, the authors attempted to use observations of the Hall effect for investigating electron exchange. The influence of adsorption of oxygen, barium oxide, and barium on the Hall effect in nickel films was studied. A diagram of the experimental tube is shown in Fig. 1 of the Enclosure. First, Hall emf versus magnetic field curves were obtained for clean nickel films; these are typical of ferromagnetic films. Then, analogous curves were obtained with the films coated with oxygen, barium, and barium oxide. The last had virtually no effect. Adsorption of oxygen resulted in an increase in the slope of the curve in the high-field region, indicating reduction of the number of conduction electrons in the film. Adsorption of barium, on the contrary, appears to increase the number of conduction electrons in the film slightly. Adsorption of oxygen and of barium leads to changes in the extraordinary Hall effect (the authors do not attempt to interpret this phenomenon at present). It would appear, therefore, that investigation of the influence of adsorption on the Hall effect in thin

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ACCESSION NR: AP4045301

films can yield valuable information on electron exchange. Orig. art has: 2 formulas and 4 figures.

ASSOCIATION: Institut fiziki Akademii nauk UkrSSR (Institute of Physics, Academy of Sciences, UkrSSR)

SUBMITTED: 00 ENCL: 01

SUB CODE: EM, CC NO REF SOV: 003 OTHER: 002

Card 3/4

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3

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ACCESSION NR: AP5015301

ENCLOSURE: 01

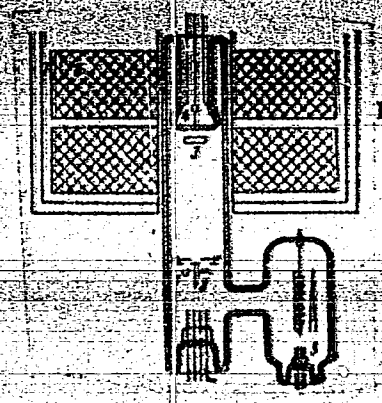

Fig. 1. Diagram of the experimental tube: 1 - nickel evaporator, 2 - adsorbate evaporator, 3 - movable electron gun, 4 - support for deposition of films, 5 - ionization vacuum gage, 6 - solenoid, 7 - liquid nitrogen.

Card 4/4

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3

ACCESSION NR: AP4019871 S/0181/64/006/003/0954/0956

AUTHORS: Panchenko, O. A.; Ptushinskiy, Yu. G.

TITLE: The effect of adsorption of barium on the Hall effect in thin nickel films

SOURCE: Fizika tverdogo tela, v. 6, no. 3, 1964, 954-956

TOPIC TAGS: adsorption, Hall effect, Hall constant, conduction electron, electron interaction, work function, electron work function, thin film

ABSTRACT: The authors' purpose has been to obtain information on electron interaction during adsorption. It has been known for some time that the adsorption of Ba on the surface of a metal is accompanied by decrease in the electron work function, but no opinion has been advanced concerning the mechanism of this effect. The authors plot the Hall emf against magnetic field strength and find t that the adsorption reduces the slope of this dependence. That is, adsorption of Ba decreases the Hall constant, and this indicates a decrease in number of conduction electrons in the film. The authors conclude that these results indicate that the adsorption of Ba atoms is accompanied by the transition of electrons

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ACCESSION NR: AP4019871

from adsorbate to adsorbent, i.e., by the ionization of these atoms. It is probable that this process leads to a decrease in the work function. Orig. art. has: 1 figure.

ASSOCIATION: Institut fiziki AN UkrSSR, Kiev (Institute of Physics AN UkrSSR)

SUBMITTED: 07Sep63 DATE ACQ: 31Mar64 ENCL: 00

SUB CODE: NP NO REF SOV: 002 OTHER: 000

Card 2/2

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3

ACC NR: AP6033527 SOURCE CODE: UR/0185/66/011/010/1140/1142

AUTHOR: Panchenko, O. A.

ORG: Institute of Physics, AN URSR, Kiev (Instytut fizyky AN URSR)

TITLE: Electric conductivity of thin films

SOURCE: Ukrayins'kyy fizychnyy zhurnal, v. 11, no. 10, 1966, 1140-1142

TOPIC TAGS:: thin film, nickel, [redacted] film electric conductivity, electron conductivity, hole conductivity, [redacted] Hall constant

ABSTRACT: An experimental determination has been made of the dependence of the Hall constant and electric conductivity on the thickness of nickel thin films up to about 230 Å thick deposited in a vacuum of not less than $3 \cdot 10^{-9}$ tor. The values of electron (σ_s) and hole (σ_d) conductivity were calculated on the basis of the obtained data. The σ_s/σ_d ratio for thicker films was found to approach that for solid nickel. With increasing film thickness, the Hall constant and the electron component of the electric conductivity of nickel increased, while the hole conductivity component remained practically independent of the film thickness. This can be explained by a substantially different degree of electron and hole rebounding near the nickel film sur-

Card 1/2

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3

ACC NR: AP6033527

face. The author thanks Yu. G. Ptushin'skiy for useful discussion of the work. Orig. art. has: 3 figures.

SUB CODE: 20/ SUBM DATE: 30May66/ ORIG REF: 002/ OTH REF: 009

Card 2/2

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3

1-A

11A

Glycogen degradation by alkali. O. N. Panchenko (Inst. Biol. Med. Chem., Acad. Med. Sci., Moscow). *Biokhimiya* 15, 523-7(1950).—Acid and reducing products are formed from glycogen by dil., hot alkali, just as in the case of starch (*Taylor, et al., C.A.* 29, 7232[1]). Thus, 1.0 g rabbit-liver glycogen, prepd. by CCl_3CO_2H extn., requires 5.0 ml. 0.1 *N* NaOH and 77 mg. I (incubation of the glycogen with 0.1 *N* NaOH at 100° for 60 min.). For starch, the values are 36 ml. and 142 mg., resp. The glycogen obtained from tissues by boiling for 3 hrs. with 30% NaOH formed only half as much acid and reducing substances as the glycogen prepd. by CCl_3CO_2H extn. The concd. alkali stabilized the glycogen towards the action of the hot 0.1 *N* NaOH.

H. Priestley

1951

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3

TANCHENKO C.N. AND ROZENFELD

3924. Tanchenko C.N. and Rozenfeld E.I. Participation of the aldehyde group of glycogen molecule in the [illegible] of glycogen-protein [illegible] Doklady Akad. Nauk S.S.S.R. [illegible], [illegible])

In order to investigate the possible participation of the -CHO group of glycogen in protein complexing, glycogen was treated [illegible] and NaCl solution [illegible] pH 7.2 - 8 and dialyzed [illegible] substance either to pure or to [illegible] value. A [illegible] hypothesis [illegible] of fresh prepared [illegible] treated glycogen that oxidation of the - CHO group to -COOH [illegible] vent the interaction with the protein which refers to the role of glycogen in the enzyme. If the glycogen is pretreated with [illegible] to form protein complex [illegible] oxidation [illegible] product, the [illegible] treatment gives [illegible] rapid clearance [illegible] specimens. The results support the idea that protein-glycogen complexes form in the presence of the -CHO group in glycogen [illegible]. Y. [illegible] (Chemical Abstracts)

SO. Excerpta Medica, Section II Volume [illegible]

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3

PANCHENKO, O. N.

PANCHENKO, O. N. - "Investigation of the Intensity of Formation of Proteins of the Liver During Experimental Malignancy Caused by Orthoaminoazotoluene in Rats and Mice." Sub 14 Oct 52, Acad Med Sci USSR. (Dissertation for the Degree of Candidate in Medical Sciences).

SO: Vechernaya Moskva January-December 1952

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3

CA

Lab Physiol. Chem.,

Significance of aldehyde groups in the glycogen molecule. E. L. Rosendel'd and O. [illegible] (Acad. Sci., Moscow). *Biokhimiya* 17, 214-[illegible]. — The aldehyde groups in glycogen were dest. by heating, at 20° for 48 min., 20-30 mg. of glycogen, 2 ml. of 0.005 *M* I, and 0.5 ml. of 0.1 *N* NaOH. After treatment with 0.2 ml. of 5 *N* H_2SO_4, the unused I was titrated with 0.005 *N* $Na_2S_2O_3$. Different glycogens vary in their reducing capacities. Muscle glycogen required 0.3-0.7 mg. I per 100 mg. substance, whereas liver glycogen required 1.1-3.8 mg. I. This agrees with the view that the mol. wt. of liver glycogen is higher than that of muscle glycogen. Treatment of glycogen (prepd. by extn. with CCl_3CO_2H) with concd. NaOH did not lower its reducing capacity. The aldehyde groups of glycogen were therefore not destroyed by alkali. The conversion of the CHO to the CO_2H group hastened the phosphorolytic decompn. of glycogen in the presence of proteins. H. Priestley

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3

PANCHENKO, O.N.; SAMSONOVA, V.S.; KHRIPUNOVA, I.I.

Metabolism in tissue explants of the Maitland type. Biokhimiia 24 no.4:631-639 Jl-Ag '59. (MIRA 12:11)
(TISSUE CULTURE metab)

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PANCHENKO, O.N. (Moskva)

Nutrition and metabolism of animal cells in culture. Usp. sovr. biol. 53 no.2:169-188 Mr-Ap '62. (MIRA 15:5)
(CELL METABOLISM) (TISSUE CULTURE)

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PANCHENKO, O.N.

Utilization of Soviet products for the preparation of semi-synthetic media suitable for the cultivation of L and HeLa cell lines on the surface of glass and in suspensions. Vop. virus. 8 no.1:108-115 Ja-F'63. (MIRA 16:6)

(TISSUE CULTURE)

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PANCHENKO, P.F.

In the German Democratic Republic. Zashch.rast.ot vred. i bol. 3 no.2:52 Mr-Ap '58. (MIRA 11:4)
(Germany, East--Plants, Protection of)

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PANCHENKO, R.S., assistent

Clinical aspects of pulmonary inflammation in hypotrophic children. Sbor. trud. Kursk. gos. med. inst. no.13:172-174 '58. (MIRA 14:3)

1. Iz kliniki detskikh bolezney (zav. - dotsent I.A.Bystritskiy) Kurskogo gosudarstvennogo meditsinskogo instituta.
(PNEUMONIA) (MALNUTRITION)

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DEYEV, M.Ya., master; YELCHEV, G.A., slesar'; SNIGIREV, F.I., slesar'; NEKRASOV, V.G., slesar'; NAD'KIN, N.A., mashinist elektrovoza; OSHIVALOV, A.V., mashinist elektrovoza; PANCHENKO, P.M., mashinist elektrovoza.

Brush-holder units must be improved. Elek.i tepl.tiaga 2 no.4:6-7 Ap '58. (MIRA 12:3)

1. Elektromashinnyy tsekh depo Zlatoust Yuzhno-Ural'skoy dorogi (for Deyev). 2. Depo Zlatoust-Yuzhno-Ural'skoy dorogi (for all except Deyev).

(Electric brushes) (Electric railway motors)

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PANCHENKO, P.F., polkovnik, voyennyy letchik pervogo klassa

When the target shows up on the radar sight. Vest.Vozd.Fl. no.9: 16-19 S'60. (MIRA 13:10)

(Air warfare)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3

PANCHENKO, P.M., podpolkovnik meditsinskoy sluzhby, dotsent

Surgical methods in acute closed trauma of the brain. Voen.-med. zhur. no.8:30-34 Ag '61. (MIRA 15:2)
(BRAIN--WOUNDS AND INJURIES)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3

PANCHENKO, P.M.; BALGLEY, P.Ya.; IVANOVA, T.T.

Combined form of neurofibromatosis. Vop.neirokhir. 25 no.3: 53-56 My-Je '61. (MIRA 14:5)

1. Kafedra neyrokhirurgii Voyenno-meditsinskoy ordena Lenina akademii imeni S.M. Kirova.
(TUMORS)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3

PANCHENKO, P. M., dotsent (Leningrad)

Tracheostomy in acute craniocerebral trauma. Vop. neirokhirurgii no.3:15-19 '62. (MIRA 15:7)

1. Kafedra neyrokhirurgii Voyenno-meditsinskoy ordena Lenina akademii imeni S. M. Kirova.

(TRACHEA—SURGERY) (BRAIN—WOUNDS AND INJURIES)
(SKULL—WOUNDS AND INJURIES)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3

SAMOTOKIN, B.A.(Leningrad); PANCHENKO, P.M. (Leningrad)

"Treatment of fractures of the base of the skull. Frontobasal and laterobasal fractures of the nose, accessory sinuses and ear" by H.G.Boenninghaus. Reviewed by B.A.Samotokin and P.M. Panchenko. Vest.khir. 89 no.9:138-139 S '62. (MIRA 15:12)
(SKULL—FRACTURE) (BOENNINGHAUS, H.G.)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3

KALININ, V.K., kand. tekhn. nauk; MIRONOV, K.A., inzh.; LEVIN, B.M., inzh.; LIBMAN, G.M., inzh.; YERSHOV, Ye.F., inzh.; PANCHENKO, P.M., inzh.; BOLYCHEV, N.G., mashinist elektrovoza; ZOLOTAREV, V.N., mashinist instruktor; YANIN, I.A., inzh.; BOVE, Ye.G., kand. tekhn. nauk, red.; USENKO, L.A., tekhn. red.

[Electric networks and maintenance of the equipment of electric locomotives] Elektricheskie skhemy i ukhod za oborudovaniem elektrovozov. [By] V.K.Kalinin i dr. Moskva, Transzheldorizdat, 1963. 279 p. (MIRA 16:7)
(Electric locomotives)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3

PANCHENKOV, G.M.; TOLMACHEV, A.M.

Synthetic zeolites as ion exchangers. Part 1: Kinetics of ion exchange. Kin. i kat. 4 no.6:853-858 N-D '63. (MIRA 17:1)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova, khimicheskiy fakul'tet.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3

PANCHENKO, P.M., dotsent (Leningrad)

Novocaine tests in the diagnosis of brain diseases. Vop. neirokhir. 27 no.3:26-29 My-Je '63. (MIRA 1[illegible])

1. Kafedra neyrokhirurgii (nachal'nik - B.A.Samotokin) Voyenno-meditsinskoy ordena Lenina akademii imeni Kirova, Leningrad.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3

PANCHENKO, P.M., dotsent

Early diagnosis of epidural and subdural hematoma following severe closed cerebrocranial trauma. Vest. khir. no.10:55-59 '64. (MIRA 18:1

1. Iz kafedry neyrokhirurgii (nachal'nik - B.A. Samotokin) Voyenno-meditsinskoy ordena Lenina akademii imeni Kirova.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3

PANCHENKO, P.M., dotsent

Methodology for the anesthesia of reflexogenic zones in surgery of the brain and spinal cord. Vop. neirokhir. no.1: 43-46 '65. (MIRA 18:10)

1. Kafedra neyrokhirurgii (nachal'nik - B.A. Samotokin) Voyenno-meditsinskiy ordena Lenina akademiya imeni S.M. Kirova, Leningrad.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3

PANCHENKO, R.S., assistent

Clinical aspect of chronic pneumonia in very young children. Sbor. trud. Kursk. gos. med. inst. no.16:328-33. 6. (MIRA 17:9)

1. Iz kliniki detskikh bolezney (ispolnyayushchiy obyazannosti zaveduyushchego - dotsent S.I. Kopelovich) Kurskogo meditsinskogo instituta.

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1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

21

Investigation of coal from noncommercial seams of the Donets basin. V. I. Fomenko and S. A. Panchenko. *Geol. Zhur.* 7, No. 4, 33-48(1940); *Chem. Zentr.* 1943, II, 977. The investigation of the noncom. coal seams of Orishino-Lisitschansk and the outcrops in the Donetz region indicates that these coals can be divided into 2 groups. The first kind is a high-volatile, high-ash coal with little humus; the other kind a low-ash humus coal. The first coal yields a primary tar consisting largely of paraffin and naphthene hydrocarbons, with a considerable percentage of solid paraffin boiling from 325 to 370°; phenols, which are mainly low-boiling, are present only to a slight extent. The primary tar from the second coal contains up to 25% phenols, and otherwise behaves like a humus coal. R. W. Ryan

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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1. PANCHENKO, S. D. : CHASHKIN, I. N.

2. USSR (600)

4. Horse Training

5. Results of the trials of the New-Kirghiz horse breed with pack loads in high altitude conditions. Konevodstvo 22 no. 10 1952

9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3

PANCHENKO, S. G.

PANCHENKO, S. G. — "Water Birds of Karaganda Oblast." Acad Sci Kazakh SSR. Inst of Zoology. Alma-Ata, 1955. (Dissertation for the Degree of Candidate in Biological Sciences)

SO: Krizhnaya Letopis', No 2, 1956, pp 102-122, 124

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3

PANCHENKO, S.G.

Materials on the distribution and ecology of anserine birds in central Kazakhstan. Trudy Inst.zool.AN Kazakh SSR 10:34-55 '59. (MIRA 12:7)

(Karaganda Province--Ducks)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3

The use of Chelyabinsk semicoke in the mixture for carbonization at the plants of the Ural-Kuznetsk Combine. S. I. Puzrbashe. *Coke and Chem.* (U. S. S. R.) 1933, No. 11, [illegible] The results of a no. of carbonizing tests are given to study the possibilities of increasing the coal resources of the Ural deposits for carbonization at the coke-oven plants under construction in Nishny-Tagil and Gubakha of the Ural-Kuznetsk Combine. Data are given for cleaning of Chelyabinsk coals, for low-temp. carbonization of these coals and for the quality of coke from various mixts. with addn. of different portions of raw and cleaned Chelyabinsk coals and semicoke from these coals with different contents of volatile matter. The tests showed that the addn. of semicoke to the mixt. was justifiable. A. Pestoff

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PROCESSES AND PROPERTIES

Ca

21

The quality of coals of the Donets basin. S. I. Pan-
chenko. *Coke and Chem.* (U. S. S. R.) 1933, No. 12,
41-5.—A crit. discussion. The ash in coals used for coke
manuf. was 13.24% in May, 1933 (in certain mines it was
as high as 40.0%). A. Pustoff

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

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1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

Ea

21

Desulfurization of the anthracene fraction of coal tar. M. I. Kamentsev, S. I. Pyachenko, and O. B. Kagan. *Destructive Hydrogenation of Fuels, O. N. T. I. Goskhimtekhnizdat* (Leningrad) 1, 285-90(1934).—The stock used in the hydrogenation had a sp. gr. of 1.1 at 80°, initial b. p. 300°, crude anthracene 40%, the latter contg. 15% of pure anthracene. The expts. were carried out without catalysts and with chromic acid-iron and NH_4 molybdate catalysts, at an initial H pressure of 94-100 atm., an operation pressure of 20.5-242 atm. and a residual pressure of 30-60 atm. The temp. was maintained at 435-460° and the duration was 1-5 hrs. There were obtained 16.7-69% of products b. below 300°. The yield of products b. below 300° was raised to 64% by using a mixt. of MgO, ZnO and V_2O_5 as catalyst. A. A. B.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3

Experimental carbonization of coals from East Siberia (Irkutsk basin). S. I. Panchenko. *Coke and Chem.* (U.S.S.R.) 1936, No. 4, 29-32.—The qualities and results of exptl. carbonization in boxes of coals from the Irkutsk coal fields are discussed. A. Pestoff

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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CA

21

Why semicoke with a low content of volatile matter is unsuitable as an addition to coal mixtures to bring down their content of volatile matter. S. I. Panchenko. *Coke & Chem.* (U. S. S. R.) 1934, No 8, 47-9. A discussion.

A. Pestoff

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1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

Grading of coking coal S. I. Fanchenko. *Ugol* 20, No. 10, 6-8(1945). A scheme for evaluating coking coal from the standpoint of the case of its concn. is presented. The impurities which det. the ash content of coal are either an integral part of the coal or externally mixed with it. The latter can be readily sepd. while the former can be removed only by removing the more mineralized parts of the coal. This requires more or less complicated treatment. The extent of mineralization is the property on which evaluation of coal is based. The degree of mineralization or ash content should be detd. on the fraction floating on a liquid of sp. gr. 1.4. This fraction (sp. gr. 1.4-1.5) is considered indicative. Its ash content is higher than that of the fraction of sp. gr. 1.3-1.4 (coal fraction) and approaches the ash content of the fraction sp. gr. 1.5-1.6 (intermediate fraction). Ordinarily, the ash content of this fraction (1.4-1.5) exceeds the av. ash content of the coal. According to the ash content of the fraction floating on a liquid, sp. gr. 1.4, coal is classified into 6 groups, viz. less than 5%, I, 5-7%, II, 7-9%, III, 9-11%, IV, 11-13%, V and more than 13%, VI. The groups I-V yield a coke contg. not over 8, 10, 12, 15, and 17.5%, resp. Group VI is of no interest to the present-day coking installations. From the standpoint of case of contg. the coal, the following classification is proposed: yield of fraction of sp. gr. less than 1.4 over 90% easy, 80-90% medium, 70-80% difficult, 60-70% very difficult, and less than 60% exceptionally difficult. A third group is suggested with reference to the content of external impurities (rock, shale, etc.). This grouping is based on the content of fraction sp. gr. over 1.8 as follows: less than 10% (1), 10-15% (2), 15-20% (3), 20-25% (4), 25-30% (5), and 30% (6). The gravity sepn. on the basis of which the 3 groupings are based should be carried out on coal samples ground to below 12-mm. diam. M. H.

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

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PANCHKIN C, I. I.

"The Problem of Optimum Dressing and the Method of Estimating the Concentration of Coking Coal", Stal', No. 5, 1948. Cand. Technical Sci. Eastern Coal Chemical Inst., -c1947-.

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CA

21

Optimum beneficiation and method of its evaluation of coking coals. S. I. Pancheshko. *Stal* 8, 397–403(1948). Coal samples from various deposits of coking coal were subjected to gravity sepn. and the individual fractions were then studied. The correlated data showed that in coal beneficiation the fractions having a d. > 1.4 should be removed. If a coal is petrographically homogeneous, the fraction 1.4–1.5 can be added to the concentrate. A reliable evaluation of coking coals can be based on the yield of fraction < 1.4 and the ash content of this fraction.

M. Hoseb

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3

Panchenko S.I.

68-11-3/11

AUTHOR: Panchenko, S.I., Doctor of Technical Sciences.

TITLE: Resources of Coking Coals for Eastern and Northern Regions (Syr'yevaya baza koksovaniya vostoka i severa)

PERIODICAL: Koks i Khimiya, 1957, No.11, pp. 15 - 18 (USSR).

ABSTRACT: The development of coals resources for the eastern and northern regions during 40 years of Soviet rule is outlined. It is concluded that the resources of coals suitable for coking in these two regions are so vast that the development of the coking industry in this respect has no limitations.

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68-58-5-24/25

AUTHORS: ~~Panchenko, S.I.~~, Doctor of Technical Sciences and
Klopotov, I.K., ~~Candidate~~ of Technical Sciences

TITLE: Letter to the Editor (Pis'mo v redaktsiyu)

PERIODICAL: Koks i khimiya, 1958, Nr 5, p 63 (USSR).

ABSTRACT: It is pointed out that in the book by Obukhovskiy Ya.M. "The Preparation of Coal Blends for Coking", the classification of coals is outdated and the new classifications will be published in Koks i Khimiya.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001238930002-3

AUTHORS: Panchenko, S.I. and Popov, N.A. 68-58-2-1/21

TITLE: The Importance of the South Yakutsk Coal Basin for the Development of the Iron and Steel Industry in Regions East of Lake Baykal (Znacheniye Yuzhno-Yakutskogo ugol'nogo basseyna v razvitii chernoy metallurgii v rayonakh vostochneye ozera Baykal)

PERIODICAL: Koks i Khimiya, 1958, Nr 2, pp 3-5 (USSR)

ABSTRACT: Large iron ore deposits situated to the east of the Lake Baykal (Berezovskoye - on the lower part of the River Argun', Aldanskoye - in Southern Yakutiya, Garskoye - north of the town Svobodnyy) could form a supply base for raw material for the iron and steel industry. There are also large coal deposits mainly of brown and gas coals unsuitable for the production of metallurgical coke. The exception is South Yakutsk coal basin which contains fat, coking and lean coking coals. General characteristics of coal seams of this basin are given. The total coal resources of this basin are at present evaluated as 40 milliards tons. Pilot plant coking of the Yakutsk coals in blends with gas coals of the Bukachachinsk and Bureinsk basins was carried out (no details given) with satisfactory results. Thus, the South Yakutsk basin can provide coals suitable for coking either alone or in blends with a considerable proportion

Card1/2

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68-58-2-1/21

The Importance of the South Yakutsk Coal Basin for the Development of the Iron and Steel Industry in Regions East of Lake Baykal

of gas coals. The importance of this basin for the development of the iron and steel industry in the East is stressed and the inclusion of the development of this basin into the general plan of development of national economy in 1959-1965 is proposed. As the first step, the construction of a railway joining this basin with the Siberian main railway line is advocated.

ASSOCIATION: VUKhIN

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Card 2/2

1. Coal - USSR 2. Iron industry - USSR
3. Steel industry - USSR

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Akademiya nauk SSSR. Sovet po izucheniyu proizvoditel'nykh sil

Chernaya metallurgiya (Ferrous Metallurgy) Moscow, Izd-vo AN SSSR, 1960.
275 p. (Series: Resursy proizvoditel'nykh sil Vostochnoy Sibiri)
Errata slip inserted. 2,000 copies printed.

Ed.: G.I. Lyubogovskiy, Candidate of Technical Sciences, Ed. of Publishing House: G.M. Makovskiy; Tech. Ed.: Ye.V. Mazuni. Editorial Board of this vol.: S.S. Dvorin, N.V. Ovchinnikov, Candidate of Technical Sciences, A.S. Pokhvisnev, Doctor of Technical Sciences, and A.A. Fedotov, Engineer. Editorial Board of Series: I.P. Bardin, (Deceased), Academician, Academy of Sciences USSR (Chief. Ed.); M.A. Lavrent'yev, Academician, Academy of Sciences USSR; V.I. Dimshits, Academician, Academy of Sciences USSR; S.I. Vol'fkovich, Academician, Academy of Sciences USSR; V.S. Nemchinov, Academician, Academy of Sciences USSR; V.I. Veyts, Corresponding Member, Academy of Sciences USSR; G.D. Levitskiy, Corresponding Member, Academy of Sciences USSR; N.S. Nekrasov, Corresponding Member, Academy of Sciences USSR; L.B. Pustovalov, Corresponding Member, Academy of Sciences USSR; T.S. Khachaturov, Corresponding Member, Academy of Sciences USSR; N.F. Rostovtsev, Academician, All-Union Academy of Agricultural Science; A.S. Popov, Member, Academy of Building and Architecture USSR; L. Ye. Grafov, Deputy Chairman, State Planning Committee of the Council of Ministers RSFSR; A.D. Gashev, Member, State Planning Committee of the Council of Ministers RSFSR; A.Ye. Probst, Professor; V.F. Vasyutin, Professor. V.A. Krotov, Professor; P.V. Vasil'yev, Doctor of Economics; G.I. Lyubogovskiy, Candidate of Technical Sciences; P.A. Letunov, Candidate of Geology and Mineralogy; and N.G. Shkal'nikov, Candidate of Economics.

PURPOSE: This collection of papers is intended to furnish information on industrial resources in Eastern Siberia and to provide a basis for future developmental planning in the field of ferrous metallurgy.

COVERAGE: The collection is a summary of the proceedings of the Ferrous Metallurgy Section of the Joint Conference of Representatives of the Academy of Sciences USSR, the State Planning Commission, and the Council of Ministers RSFSR on the Development of the Industrial Resources of Eastern Siberia. The collection deals with four main areas of development in Eastern Siberia: 1) Mineral resources, 2) the fuel base, 3) prospects for the development of ferrous metallurgy, and 4) problems in the development of electrometallurgy. A list of the 112 members of the Section with their affiliations is given in the Appendix. References accompany several of the articles.

Sitbenko, V.K. Prospects for the Development of Coke and Chemical Production From Coking Coals of Eastern Siberia 95

Panchenko, S.I. Raw Material Base for Coke Supply for Eastern Siberian Ferrous Metallurgy 104

Saporshnikov, L.A. Continuous Coking and SemiCoking of Eastern Siberian Coals 110

Pokhvisnev, A.S. and B.M. Zlobinskiy. Coke From Eastern Siberian Brown Coals 114

Review of Adresses on Reports Dealing With the Development of the Coke and Coke Byproduct Coke Industry of Eastern Siberia 121

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PANCHENKO, S.I.

Regularities of changes in the properties of coal. Mat. Tem. kom. no.1:77-87 '61. (MIRA 17:2)

1. Vostochnyy ugolekhimicheskiy institut.

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SOV/68-59-9-7/22

AUTHORS: Klopotov, I.K., and Panchenko, S.I.

TITLE: Checking of the International Classification on Coals from Eastern Regions of the USSR

PERIODICAL: Koks i Khimiya, 1959, Nr 9, pp 12 - 18 (USSR)

ABSTRACT: In order to check the international classification of coals, 140 samples of coals from the following coal basins were tested: Kuznetsk, Karaganda, Yuzhno-Yakutskiy and Donets. The distribution of the coals investigated in sub-groups of the classification (Table 1) indicated that the classification does not classify coals sufficiently according to their properties. E.g., coals with a volatile content varying from 28 to 46% fell into the same sub-group. Correlations of the individual classifying parameters of the international classification with the thickness of the plastic layer (USSR classifying parameter) were carried out: index Roga - Figure 2; Audiber Arnu dilatometer - Figure 3; Grey King coke types - Figure 4. The results obtained indicated that the Roga index differentiated well only medium caking coals and not high and low caking coals; Audiber Arnu dilatometric characteristics do not differentiate sufficiently low caking coals; Grey King coke types

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Checking of the International Classification on Coals from Eastern Regions of the USSR

do not differentiate low caking coals, differentiate well medium caking coals and differentiate insufficiently high caking coals. It is often claimed that the Audiber Arnu and Grey King tests determine the coking ability of coals and therefore, their comparison with the thickness of the plastic layer, which does not determine either caking or coking ability, may be misleading. To check this possibility various types of coals were coked on a pilot plant (VUKhIN). The qualities of the coals so tested and strength indices of coke produced from these coals are given in Table 1. It was found that coals belonging to the same type of the international classification can produce cokes of widely varying strength characteristics. It is concluded that a single classification system can characterise coals from various basins correctly only if the classifying parameters reflect such genetic factors as petrographic composition, rank, degree of oxidation or degree of reduction i.e., factors which determine the differences in the chemical nature of coals and their properties.

There are 4 figures and 2 tables.

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ASSOCIATION: VUKhIN

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5(1) PHASE I BOOK EXPLOITATION SOV/212'

Koksokhimicheskoye proizvodstvo; sbornik statey (By-Product Coking Industry; Collection of Articles) Moscow, Metallurgizdat, 1959. 240 p. 2,500 copies printed.

Ed.: B. S. Filippov; Ed. of Publishing House: A. A. Revyakin; Tech. Ed.: P. G. Islent'yeva

PURPOSE: The book is intended for engineers and technicians in the by-product coking industry and in scientific research institutes. The book may also be used by students in secondary and higher technical schools.

COVERAGE: The articles in this collection on the by-product coking industry appeared originally either in the periodical Koks i khimiya (Coke and Chemistry) or in other publications during 1955-1958. The book discusses the development of raw-material reserves for coking, technology of the manufacture of coke, quality of coke and further enlargement of the number of chemical coking products obtained. Some articles are devoted to a new procedure for preparing and beneficiating coals, new methods for coking, and to the mechanization and automation of industrial processes. References accompany individual articles.

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SOV/68-59-3-2/23

AUTHOR: Panchenko, S.I., Doctor of Technical Sciences and
Klopotov, I.K., Candidate of Technical Sciences

TITLE: Classification of Coking Coals (Klassifikatsiya spekayushchikhsya ugley)

PERIODICAL: Koks i Khimiya, 1959, Nr 3, pp 6-14 (USSR)

ABSTRACT: A classification of coking coals is proposed based on the following investigating conditions of a large number of Russian coals: 1) coals with the ash content above 8% were beneficiated according to sp gr 1.4 after their crushing to a size below 12 mm; 2) coking of coals crushed to 93-95% of below 3 mm fraction was carried out in a semi-industrial oven (ref.1) at a coking time of 14 - 14.5 hours at the final temperature in the tar line plane of 950°C; 3) the resistance of coke to crushing and abrasive forces was determined in a small drum (50 kg sample) and the results obtained recalculated on the indices of a standard drum test; 4) the content of oxygen in coal was determined by a direct method (ref 2) and by difference The oxygen by difference was calculated according to the following formula:

$O = 100-(W + A + 0.625\ S_{pyritic} + S_{organic} + C + H+N+CO_2)$

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